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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/543,129	01/26/2006	Sang Woon Suh	1630-0488PUS1	2627

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EXAMINER

DAZENSKI, MARC A

ART UNIT	PAPER NUMBER
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2621

NOTIFICATION DATE	DELIVERY MODE
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10/05/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary	Application No. 10/543,129	Applicant(s) SUH ET AL.	
	Examiner MARC DAZENSKI	Art Unit 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 March 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 22-49 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 22-49 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 July 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 1 March 2010 has been entered.

Response to Arguments

Applicant's arguments filed 1 March 2010 have been fully considered but they are not persuasive.

On page 8 of the remarks, Applicant notes claims 22, 29, 36, and 43 were objected to but are now amended. In view of the amendments, the examiner withdraws the objections to these claim.

On page 8 of the remarks, Applicant argues that the rejection under 35 USC 101 to claims 22-28 and 36-42 (it is noted that this is an error, and the examiner interprets this to mean "36-42") should be withdrawn in view of the newly amended claims. The examiner notes that the inclusion of recording information on a "lead-in" area is not a sufficient positive recitation of structure, and therefore the claims remain rejected under 35 USC 101 for not being tied to any particular apparatus or machine (e.g., the claim as

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written could be interpreted to be a user enacting the method by writing the claimed "control information," etc., onto a piece of paper with the phrase "lead-in" area written at the top).

On pages 9-10 of the remarks, Applicant submits that "Tozaki and Weijenbergh, either individually or in combination, fail to disclose or suggest each and every feature of claims 29, 36 and 43, which recite similar features [to claim 22] of varying scope." On page 10, for example, Applicant argues, "...the disclosed 'reading rate' of Tozaki represents the velocity for reading data from the disc, but, the recited 'playback speed' of claim 22 represents the velocity for reproducing the disc. Therefore, the object of Tozaki is different from the object of recited feature of the present invention." The examiner respectfully disagrees, and notes that in order for data to be reproduced from any optical disc medium the data must first be read. It should be noted that nowhere in the claim does it say "the recited 'playback speed'...represents the velocity for reproducing the disc;" if this "reading rate" of Tozaki does not represent a velocity for reproducing a disc, then what is it? The claim merely reads "the playback speed information is for suitably reproducing a main data;" since the reading rate information of Tozaki discloses "a linear velocity able to obtain at least the reading rate indicated by the lowest reading rate information at the time of reproduction" (see column 15, lines 22-26) which is a playback speed that suitably reproduces information on a DVD, the examiner maintains that "the object of Tozaki" is not "different from the object of recited feature of the present invention" as Applicant argues. Therefore, the previously cited portions of Tozaki read on the limitations of the claim.

On page 10 of the remarks, Applicant argues “Weijenbergh fails to remedy not only the additional deficiency of Tozaki, but fails to remedy even the acknowledged deficiency of Tozaki, because Weijenbergh discloses a ‘maximum transfer rate’ that is 4 bits.” The examiner notes that although Weijenbergh’s “maximum transfer rate” is disclosed as comprising 4 bits (see, e.g., column 14, lines 8-18), nowhere in the claim does it say that the playback speed information is anything other than “...recorded in one byte long field...” Since Weijenbergh discloses the “maximum transfer rate” existing in Byte 1 (see e.g., column 14, line 8 as well as figure 7 particularly “byte 1”), the examiner maintains that this reads on the claimed, “...the playback speed information is recorded in one byte long field.”

Also on page 10 of the remarks, Applicant argues, “Moreover, both the ‘maximum transfer rate’ and the disc size of Weijenbergh are represented together as one byte in an identical field.” The examiner notes that this argument is moot since a careful reading of the claim does not anywhere reveal that the “maximum transfer rate” and the “disc size” must be in separate fields. Rather, the claim merely calls for “...the playback speed information is recorded in one byte long field...”, which it is (see e.g., column 14, lines 8-18).

In the final 3 lines of page 10, Applicant further points to figure 7 of Weijenbergh while arguing that “playback speed” of the claimed invention “is itself 1 byte, and further, the ‘playback speed information’ and the ‘disc size’ exist as different fields for the present invention.” The examiner notes that, as explained above, this argument is moot since the features argued are not found anywhere in the claims. In response to

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applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., see lines 15-20 of page 10 in the remarks) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

A full rejection of the pending claims appears below.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 22-28 are rejected under 35 U.S.C. 101 as not falling within one of the four statutory categories of invention. Supreme Court precedent¹ and recent Federal Circuit decisions² indicate that a statutory “process” under 35 U.S.C. 101 must (1) be tied to another statutory category (such as a particular apparatus), or (2) transform underlying subject matter (such as an article or material) to a different state or thing. While the instant claim(s) recite a series of steps or acts to be performed, the claim(s) neither transform underlying subject matter nor positively tie to another statutory category that accomplishes the claimed method steps, and therefore do not qualify as a

¹ *Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972); *Cochrane v. Deener*, 94 U.S. 780, 787-88 (1876).

² *In re Bilski*, 88 USPQ2d 1385 (Fed. Cir. 2008).

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statutory process. For example, although the claim refers to two recording steps (e.g., "recording a control information..." and "recording the main data..."), the claim does not positively recite any structure which undergoes the claimed recording steps and therefore is not tied to any particular apparatus or machine.

Claims 36-42 are rejected due to similar reasoning as claims 22-28 above (except claims 36-42 are the corresponding reproducing method to the recording method of claims 22-28).

¹ *Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972); *Cochrane v. Deener*, 94 U.S. 780, 787-88 (1876).

² *In re Bilski*, 88 USPQ2d 1385 (Fed. Cir. 2008).

Regarding **claims 29-35**, although **claim 29** fails to disclose a "non-transitory" computer readable medium (i.e., the claim merely discloses a "recording medium"), the examiner maintains that the claimed "recording medium" is drawn toward only statutory media for the following reasons: the only embodiment of the invention is drawn toward an optical disc reproducing apparatus (see page 6, lines 7-12 and figure 6), and the recording medium utilized by this apparatus is only referred to as either a BD-ROM (see e.g. page 6, lines 15-25) or a BD-RE (see e.g. figure 1 and its associated text on pages 1-2). Further, there is no disclosure of the recording medium being drawn to "...or the like," "such as...", or anything else that may be interpreted as comprising a signal per se. Therefore, the examiner maintains the claim is drawn toward statutory media only.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 22-24, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tozaki et al (US Patent 7,398,010), hereinafter referred to as Tozaki, in view of Weijenbergh et al (US Patent 7,248,555), hereinafter referred to as Weijenbergh.

Regarding **claim 22**, Tozaki discloses an information recording medium, apparatus for recording the same and apparatus for reproducing the same (see title). Further, Tozaki discloses a method of recording data on a recording medium (see figure 8 as well as column 16, lines 14-17: "...for recording the above mentioned...information onto the DVD..."); the method comprising:

(a) recording a control information on a lead-in area of the recording medium, the control information including a playback speed information...a playback speed by the playback speed information is for suitably reproducing a main data (see column 14, lines 46-48: "...the lowest reading rate information indicating this lowest reading rate is recorded on a predetermined position of each DVD..."; as well as "control data 201" and "disk size and lowest reading rate 212" in figures 5, 6, and 7, wherein the playback speed of the playback speed information is for suitably reproducing a main data because the data would not be successfully reproduced if not read at the lowest reading rate);

and the playback speed information is recorded in one byte long field and is represented by a multiplication of a basic speed information (see column 14, lines 46-67: "The lowest reading rate is able to be set to either one of the maximum value of the reading rate and a reading rate equal to the maximum value multiplied by $\frac{1}{2}^n$..."; column 15, lines 14-17: "The physical format information 202 also includes one byte information 212 indicating the disk size and the lowest reading rate."; as well as figures 6 and 7 which disclose "disk size and lowest reading rate 212" comprising one byte); and,

(b) recording main data in a main data area of the recording medium (see column 16, lines 28-30: "Record information R, which is a raw material such as audio information, video information etc. to be recorded on the DVD...").

However, Tozaki fails to disclose the remaining limitations of the claim. The examiner maintains that it was well known in the art to include the missing limitations, as taught by Weijenbergh.

In a similar field of endeavor, Weijenbergh discloses a device and method for recording information enabling reduced response time of a recording device (see title). Further, Weijenbergh discloses a maximum transfer rate information specifying a maximum transfer rate needed by an application, wherein the maximum transfer rate information is represented by a bit rate, the playback speed information is distinguished from the maximum transfer rate information (see column 14, lines 8-18: "Byte 1 – Disc size and maximum transfer rate...0000: a maximum transfer rate of 2.52Mbits/s, 0001: a maximum transfer rate of 5.04 Mbits/s..."; see also figure 7 which discloses byte 1 comprising "disc size" which has been shown to comprise maximum transfer rate

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information as well as bytes 32-33 which show referenced and maximum recording velocities).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method Tozaki to include the teachings of Weijenbergh, for the purpose of identifying various reproduction rates needed by an application (see e.g., column 14, lines 13-14 of Weijenbergh).

Regarding **claim 23**, the limitations of the claim are rejected in view of the explanation set forth in claim 22 above.

Regarding **claim 24**, the combination of Tozaki and Weijenbergh discloses everything claimed as applied above (see claim 23). Further, Tozaki discloses wherein the control information table further includes a recording medium size and version information specifying a medium size and version number respectively, a medium structure information specifying a number of recorded layers and a type of the recorded layers, and a recording density information associated with recording density of the recording medium (see figure 6 which discloses disk size, book type and version, disk structure and recording density all being recorded as part of "physical formation information 202").

Regarding **claim 28**, the combination of Tozaki and Weijenbergh discloses everything claimed as applied above (see claim 22). Further, Tozaki discloses wherein the playback speed information is determined by referring to a transfer rate of the main data (see column 14, lines 41-59: "The lowest reading rate is able to be set to either one of the maximum value of the reading rate and a reading rate equal to the maximum

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value multiplied by $\frac{1}{2}$ ⁿ...Here, for example, it is assumed that one of 10.08Mbps...as the maximum value...5.04Mbps as the reading rate equal to the maximum value multiplied by $\frac{1}{2}$... and 2.52 Mbps as the reading rate equal to the maximum value multiplied by $\frac{1}{4}$...can be selected.”).

Claims 25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tozaki et al (US Patent 7,398,010), hereinafter referred to as Tozaki, in view of Weijenbergh et al (US Patent 7,248,555), hereinafter referred to as Weijenbergh, in view of Mishima et al (US Patent 7,343,083), hereinafter referred to as Mishima.

Regarding **claim 25**, the combination of Tozaki and Weijenbergh discloses everything claimed as applied above (see claim 22). However, the combination fails to disclose the remaining limitations of the claim. The examiner maintains that it was well known in the art to include the missing limitations, as taught by Mishima.

In a similar field of endeavor, Mishima discloses a digital video signal record and playback device and method for selectively reproducing desired video information from an optical disk (see title). Further, Mishima discloses wherein the playback speed represents 1.2 or 1.5 times of the basic speed information (see column 67, lines 31-34: “...the rate control of the variable rate is set, in the beginning, to discrete rate goals such as 1Mbits, 1.5Mbits, 2Mbits, 2.5Mbits, 3Mbits, or the like so that each of the rate information in all the GOP is recorded on a disc...”).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Tozaki and Weijenbergh to include the teachings of Mishima, for the purpose of facilitating trick-play playback

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modes (see column 11, lines 40-52: "...perform the skip search...perfect playback picture...").

Regarding **claim 26**, the limitations of the claim are rejected in view of the explanation set forth in claim 25 above.

Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tozaki et al (US Patent 7,398,010), hereinafter referred to as Tozaki, in view of Weijenbergh et al (US Patent 7,248,555), hereinafter referred to as Weijenbergh, in view of Kojima (US Patent 5,953,484), hereinafter referred to as Kojima.

Regarding **claim 27**, the combination of Tozaki and Weijenbergh discloses everything claimed as applied above (see claim 22). However, the combination fails to disclose the remaining limitations of the claim. The examiner maintains that it was well known in the art to include the missing limitations, as taught by Kojima.

In a similar field of endeavor, Kojima discloses a video transmitting apparatus, video data receiving apparatus and video data transmitting and receiving system (see title). Further, Kojima discloses wherein the playback speed information is determined such that the main data on the recording medium is reproduced at a transfer rate of 36Mbps, 40Mbps, or faster (see column 7, lines 44-47: "...the data storage device (204) reproduces and outputs the once recorded video data at a transmission rate of the satellite communication line, for example, 40Mbps...").

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify combination of Tozaki and Weijenbergh to

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include the teachings of Kojima, for the purpose of transmitting video data at a higher bit-rate and thus a higher quality.

Regarding **claims 29-35**, the examiner maintains the claims are the corresponding recording medium to the recording method of claims 22-28, and therefore are rejected in view of the explanation set forth in regards to claims 22-28 above.

Regarding **claims 36-42**, the examiner maintains the claims are the corresponding reproducing method to the recording method of claims 22-28, and therefore are rejected in view of the explanation set forth in regards to claims 22-28 above.

Regarding **claims 43-49**, the examiner maintains the claims are the corresponding reproducing apparatus to the reproducing method of claims 36-42, and therefore are rejected in view of the explanation set forth in regards to claims 36-42 above.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MARC DAZENSKI whose telephone number is (571) 270-5577. The examiner can normally be reached on M-F, 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter-Anthony Pappas can be reached on (571) 272-7646. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/MARC DAZENSKI/
Examiner, Art Unit 2621

/Peter-Anthony Pappas/
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